

AMERICAN DENDROBATID GROUP

Newsletter No. 8

March - April 1993

The purpose of the ADG is to develop better communication between Dendrobatid breeders in North America. It is designed by its format and bi-monthly distribution to keep dendrobatid frog breeders in better communication with one another. We hope that with this communication we will be able to solve some of the problems which confront us all. This newsletter will appear bimonthly and costs \$5.00 annually payable to either Charles Powell or Terry Chatterton.

Subscriptions, articles, comments, etc. should be sent to Charles Powell (2932 Sunburst Dr., San Jose, CA 95111 Tel.: (408) 363-0926) or Terry Chatterton (8007 Ridge Rd., Arvada, CO 80002 Tel.: (303) 420 7647).

Tribolium confusum

An excellent under utilized food for dendrobatid frogs

Ed Oshaben

As anyone who has maintained a collection of dart frogs over a long period of time knows culturing food animals for your frogs is the only real "work" that is involved - most other aspects of the hobby can be considered enjoyable. In early 1992, immediately after reading the article in the English translation of DENDROBATIDAE NEDERLANDS, entitled "The Riceflour-beetle and its larvae as food for terrarium pets" by J. Le Heux, I obtained a starter culture of this beetle. I set up two cultures using 1-gallon jars covered with pieces of cloth and secured with rubber bands. I put the jars away in a corner of my frog room and forgot about them until a few months later when I was running low on fruit flies. Using a fine mesh strainer, I sifter out about 1/4-cup of small (circa. 5 mm long), soft, white larvae and a much smaller number of adult beetles.

I decided to offer the larvae and beetles to my *Dendrobates tinctorius* first and they promptly began to eat them. I was a little confused myself when I saw the frogs 'spit' the larvae out, but after a few minutes they were eating without hesitation. The larvae are quite a bit larger than my standard bill-of-fare, fruit flies, and this may have confused the frogs. The adult beetles were also eaten by the frogs and seemed to be preferred over the larvae.

Since that time I have started many new cultures of these beetles and use them to supplement the diets of all but the smallest of my dart-poison frogs. Even young froglets of *D. auratus*, *D. leucomelas* and *D. tinctorius* will readily accept the smaller of the larvae.

Adding this new food to my frogs diet has increased the average clutch size of my *D. tinctorius* from 6 - 8 to 10 - 12. A pair of Costa Rican *D. auratus* which had not bred for the previous two years began to produce fertile clutches not long after introducing them to *T. confusum*.. One might conclude that my frogs former diet of fruit flies was not adequate, but during the previous three years I have not produced a single spindle-leg froglet out of

a total of well over 300.

Culture medium for *T. confusum* consists of 4-parts white flour, 4-parts whole wheat flour and 1 part brewers yeast. This recipe differs from the one recommended by the authors of the Dutch article, but is recommended, and sold by Carolina Biological Supply, as are the beetles themselves.

A female flour beetle can live about a year and produce 400 to 500 eggs. Because of this and the fact that overpopulations can lead to cannibalism it is recommended that the cultures be harvested monthly. Ideal temperatures for the culture is between 68°F and 77°F with a minimum of 65°F. The cultures do best if given a normal day-night light cycle and if maintained with a humidity of about 70%. As with breeding any "vermin" in your home, care must be exercised to avoid accidental releases, as these beetles will infest grain and cereal products in your home.

Although I have been using flour beetles larvae for under a year J. Le Heux reports maintaining *Phyllobates vittatus* on a diet of these beetles for 17 years, breeding them constantly!

Book announcement

The DENDROBATIDAE NEDERLANDS (Dutch Dendrobatid Group) has just translated the 1990 issue of their magazine "Dendrobatidae Magazine" into English. Copies can be purchased from Hans Zwoferink (R. Bosmastraat 62, 7462 ME Rijssen, Holland. Tel.: 05480-17942) for Fl. 35 (Dutch guilders). If anyone is willing to put in a group order for ADG members please contact Charles Powell (address above). An announcement will be made in the next Newsletter telling you where to send your money for this useful volume.

ISSD out of business

As of January, 1993 the International Society for the Study of Dendrobatid Frogs (ISSD) was disbanded. If you are owed a refund contact Edward Tunstall (ISSD Secretary/Treasurer, 2320 Palomino Dr., Chandler, Arizona, USA 85224).

10th International Frogday

On Saturday May 29th the DENDROBATIDAE NEDERLANDS will host the Tenth International Frogday in Almelo, Netherlands. For more information write or call Charles Powell (address and phone number above).

Want Adds: For Sale

<i>Dendrobates truncatus</i>	\$50	Terry Chatterton 8007 Ridge Road Arvada, CO 80002
<i>Dendrobates auratus</i> 'Costa Rica'	\$25	Sean Healy 3140 Savage Rd. Sarasota, FL 34231

Dendrobates anthonyi
CB juveniles \$30 each or \$25 each for 4 or more
Dendrobates leucomelas
CB juveniles \$45 each or \$40 each for 4 or more

Ed Oshaben
4154 Lincoln Ave.
Willoughby, OH 44094

Dendrobates pumilio \$120
Pair of long term captive frogs

Charles Powell
2932 Sunburst Dr.
San Jose, CA 95111

The Serpent's Egg (1809 Irving St., NW, Washington, D.C. 20010) has various *Dendrobates pumilio*, *D. auratus*, and *Epipedobates tricolor* for sale. Write or call for information.

Dutch Frog Sale

The Dutch Dendrobatid Group thru Hans Zwoferink is offering a wide variety of frogs for sale in the US. These frogs include: *Colostethus brunneus*, *Dendrobates auratus*, *D. azureus*, two forms of *D. leucomelas*, five forms of *D. tinctorius*, *D. ventrimaculatus* 'Yellow', *Phyllobates bicolor*, *P. femoralis*, *P. vittatus*, and *Epipedobates tricolor*. If anyone is interested in ordering any of these please contact Charles Powell (address and phone number above).

New Members

Robin C. Ashley Johnson (South Carolina)
Anthony Leiro (North Carolina)
Dr. William Rogers (South Carolina)
Kale Thomson (Kansas)

New Literature

Heselhaus, Ralf, 1993, Keeping and breeding Rocket frogs. *Tropical Fish Hobbyist*, XLI(6): 90, 92-94.
Magid, Jonathan H., 1983, Those fascinating poison frogs. *Bulletin Maryland Herpetological Society*, 19(2): 61-66.
Mebs, Bericht D., 1979, Hauttoxine bei Farbfröschen. *Naturwissenschaftliche Rundschau*, Stuttgart, 32: 294-297.

Dendrobatid Species

The following is a list of species of dendrobatid frogs along with their distributions exclusive of the genus *Colostethus*.. If anyone has additions or corrections of this list please contact either Newsletter editor.

Allobates femoralis (Boulenger, 1884)

Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Surinam

Aromobates nocturnus Myers, Paolillo & Daly, 1991
Venezuela

Dendrobates arboreus Myers, Daly & Martinez, 1984
Panama

Dendrobates auratus (Girard, 1855)
 Colombia, Costa Rica, Nicaragua, Panama, and introduced to Hawaii
Dendrobates azureus Hoogmoed, 1969
 Surinam
Dendrobates captivus Myers, 1982
 Peru
Dendrobates castaneoticus Caldwell & Myers, 1990
 Brazil
Dendrobates fantasticus Boulenger, 1884
 Peru
Dendrobates galactonotus Steindachner, 1864
 Brazil
Dendrobates granuliferus Taylor, 1958
 Costa Rica
Dendrobates histrionicus Berthold, 1846
 Colombia, Ecuador
Dendrobates imitator Schuette, 1986
 Peru
Dendrobates labialis Cope, 1874
 Peru
Dendrobates lehmanni Myers & Daly, 1976
 Colombia
Dendrobates leucomelas Steindachner, 1864
 Brazil, Colombia, Guyana, Venezuela
Dendrobates mysteriosus Myers, 1982
 Peru
Dendrobates occultator Myers & Daly, 1976
 Colombia
Dendrobates pumilio Schmidt, 1857
 Costa Rica, Nicaragua
Dendrobates quinquevittatus Steindachner, 1864
 Brazil
Dendrobates reticulatus Boulenger, 1884
 Peru
Dendrobates rufulus Gorzula, 1988
 Venezuela
Dendrobates sirensis Aichinger, 1991
 Peru
Dendrobates speciosus Schmidt, 1857
 Panama
Dendrobates tinctorius (Schneider, 1799)
 Brazil, French Guiana, Surinam, possibly Guyana

Dendrobates truncatus (Cope, 1861)
 Colombia
Dendrobates vanzolinii Myers, 1982
 Brazil, Peru
Dendrobates ventrimaculatus Shreve, 1935
 Brazil, Colombia, Ecuador, French Guiana, Peru and possibly Surinam
Epipedobates andinus (Myers & Burrowes, 1987)
 Colombia
Epipedobates ardens Jungfer, 1989
 Peru
Epipedobates anthonyi (Noble, 1921)
 Ecuador, Peru
Epipedobates azureiventris (Kneller & Henle, 1985)
 Peru
Epipedobates billinguis Jungfer, 1989
 Ecuador
Epipedobates bolivianus (Boulenger, 1902)
 Bolivia
Epipedobates boulengeri (Barbour, 1909)
 Colombia, Ecuador
Epipedobates cainarachi Schulte, 1989
 Peru
Epipedobates erythromos (Vigel & Miyata, 1980)
 Ecuador
Epipedobates espinosai (Funkhouser, 1956)
 Ecuador
Epipedobates ingeri (Cochran & Goin, 1970)
 Colombia
Epipedobates myersi (Pyburn, 1981)
 Colombia
Epipedobates parvulus (Boulenger, 1882)
 Colombia, Ecuador, Peru
Epipedobates petersi (Silverstone, 1976)
 Peru
Epipedobates pictus (Tschudi, 1838)
 Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Surinam,
 Venezuela
Epipedobates pulchripectus (Silverstone, 1976)
 Brazil
Epipedobates smaragdinus (Silverstone, 1976)
 Peru

Epipedobates tricolor (Boulenger, 1899)
Ecuador
Epipedobates zaparo (Silverstone, 1976)
Ecuador
Minyobates abditus (Myers & Daly, 1976)
Ecuador
Minyobates altobueyensis (Silverstone, 1975)
Colombia
Minyobates bombetes (Myers & Daly, 1980)
Colombia
Minyobates fulgurites (Silverstone, 1975)
Colombia
Minyobates minutus (Shreve, 1935)
Colombia, Panama
Minyobates opisthomelas (Boulenger, 1899)
Colombia
Minyobates steyermarki (Rivero, 1971)
Venezuela
Minyobates viridis (Myers & Daly, 1976)
Colombia
Phobabates bassleri (Melin, 1941)
Peru
Phobabates silverstonei (Myers & Daly, 1979)
Peru
Phobabates trivittatus (Spix, 1824)
Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Surinam
Phyllobates aurotaenia (Boulenger, 1913)
Colombia
Phyllobates bicolor Bibron, 1841
Colombia
Phyllobates lugubris (Schmidt, 1857)
Costa Rica, Panama
Phyllobates terribilis Myers, Daly & Malkin, 1978
Colombia
Phyllobates vittatus (Cope, 1893)
Costa Rica